

Preliminary Amendment***Inventors: Eric Klinker et al.******US Patent Application No.: 10/040,902******Title: System and Method to Provide Routing
Control of Information Over Networks******Page 2*****In the Claims:**

1-51. (cancelled)

52. (new) A method for controlling data flow in a multi-homed network, the multi-homed network including a source connected to a destination through a plurality of data network connections, the method comprising:

identifying cost factors for a first data flow, the cost factors including one or more of carrier data, contract data, list usage data, or billing estimate data;

passively monitoring path performance for a path associated with the first data flow to obtain path performance information;

identifying a first ingress path for the first data flow from the destination to the source based at least in part on the cost factors and path performance information;

identifying a first data network connection within the plurality of data network connections that includes a portion of the first ingress path; and

routing the first data flow through the first data network connection so that the first data flow is routed along the first ingress path.

53. (new) The method of claim 52 further comprising identifying whether the first data flow is active or inactive.

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54. (new) The method of claim 53 wherein identifying whether the first data flow is active or inactive comprises comparing one or more constituent elements of an IP data gram associated with a destination address against one or more inspection criteria.

55. (new) The method of claim 53 wherein identifying whether the first data flow is active or inactive comprises reconstructing a data flow.

56. (new) The method of claim 53 wherein the first data flow is identified as inactive and a second ingress path is identified for a next data flow.

57. (new) The method of claim 53 wherein the first data flow is identified as active and the first ingress portion is preserved for a next data flow.

58. (new) The method of claim 52 further comprising identifying a first egress path for the first data flow, the egress path including a second data network connection such that the first egress path is different than the first ingress path.

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59. (new) The method of claim 52 wherein passively monitoring path performance information includes monitoring one or more of traffic type, source address, destination address, application information, ToS field data, DSCP field data, or traffic volume.
60. (new) The method of claim 52 wherein passively monitoring path performance information includes monitoring one or more of trip latency, packet loss percentage, or jitter.
61. (new) The method of claim 52 wherein routing the first data flow through the first data network connection includes using one or more of source address manipulation or VRF routing.
62. (new) A method for routing data in a network comprising a plurality of data network connections between a first point and a second point comprising:
- passively monitoring performance characteristics of a first data flow along a first path;
 - determining an activity status of the first data flow based on the path performance characteristics;
 - if the activity status of the first data flow is active, then preserving a first ingress portion of the first path;
 - if the activity status of the first data flow is inactive, then determining that the first ingress portion is not available to route data.

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63. (new) The method of claim 62, wherein preserving the first ingress portion comprises:

forming an ingress association for the first data flow and the first ingress portion; and
routing the first data flow via the first ingress portion in accordance with the first ingress association.

64. (new) The method of claim 63, wherein forming the ingress association comprises:

identifying the first data flow with at least one remote destination address related to the second point;

identifying the first ingress portion with a first local network address related to a local source address;

associating the at least one remote destination address with the first local network address; and

storing data representing the association between the at least one remote destination address with the first local network address in a data structure within a database.

65. (new) The method of claim 62, further comprising:

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preserving a first egress portion for the first data flow, if the activity status of the first data flow is active; and

determining that the first egress portion is not available to route data, if the activity status of the first data flow is inactive.

66. (new) The method of claim 65, wherein preserving the first egress portion comprises:
forming an egress association for the first data flow and the first egress portion; and
routing data via the first egress portion in accordance with the first egress association.

67. (new) The method of claim 66, wherein forming the first egress association comprises:
identifying the first data flow with at least one remote destination address related to the second point;
identifying the first egress portion with a first interface;
associating the at least one destination address with the first interface; and
storing data representing the association between the at least one remote destination address in a data structure within a database.

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68. (new) A system for controlling routing of data through one or more data networks, the system comprising:

a flow inspector designed to receive local network data traffic from or to a local source address, the flow inspector configured to determine that at least one data flow of the local network traffic is active by passive flow analysis;

an information base coupled to the flow inspector to receive data representing one or more flows that are active, the information base configured to provide a first ingress portion of a first ingress path for a first data flow from a second point to the first point; and

a data director coupled to the information base to receive the local network data traffic and data representing a second ingress portion of a second ingress path, the data director configured to route data via the first ingress portion for active flows and to route data via the second ingress portion for next data flows.

69. (new) The system of claim 68, wherein the information base is further configured to provide a first egress portion of a first egress path to the second point from the first point and wherein the data director is further configured to route data via the first egress portion for active flows and to route data via a second egress portion for next data flows.